

## CALIFORNIA ENERGY COMMISSION

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CALIFORNIA ENERGY COMMISSION



DEC 17 2003

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December 16, 2003

The Honorable Mike Chrisman  
Secretary for Resources  
1416 Ninth Street, 13<sup>th</sup> Floor  
Sacramento, CA 95814

RE: Proposed Amendments to Appliance Efficiency Regulations –  
Residential Clothes Washers – Reassessment of Potential Impacts  
on California Businesses in Response to Executive Order S-02-03

Dear Secretary Chrisman:

**Background**

Section 25402(c) of the California Public Resources Code requires the California Energy Commission (Energy Commission) to adopt and enforce efficiency regulations for appliances. The Energy Commission has done so since 1976; the regulations are in Section 1601-1608 of Title 20 of the California Code of Regulations. Section 25402(c) requires that appliance efficiency standards adopted by the Energy Commission be both technically feasible and cost-effective to the consumer over the life of the appliance – that is, any increase in purchase cost attributable to the requirements of a standard must be equal to or less than the savings that the standard will produce.

Assembly Bill 1561 (Kelley), Chapter 421, Statutes of 2002, added section 25402(e) to the Public Resources Code. It requires the Energy Commission to adopt water efficiency standards for residential clothes washers no later than January 1, 2004. It also requires that the new standards be at least as water efficient as commercial clothes washers. In response, the Energy Commission began a rulemaking proceeding. In September 2003, the Energy Commission published proposed regulatory text and a Notice of Proposed Action. The Energy Commission also provided an Initial Statement of Reasons and a Statement of Economic and Fiscal Impacts (Form 399) to the Office of Administrative Law, as required by the California Administrative Procedure Act.

The proposed standards require a maximum water factor ("WF") of 8.5 for units manufactured on or after January 1, 2007, and a maximum WF of 6.0 for units manufactured on or after January 1, 2010. WF is the ratio of the amount of water used in a typical wash and rinse cycle (in gallons) to the capacity of the wash tub (in cubic feet); hence, a lower WF indicates a more water efficient appliance. California Appliance Regulations currently state that commercial clothes washers manufactured on or after January 1, 2007 achieve a WF of 9.5 (CCR Title 20: Division 2, Chapter 4, Article 4, Section 1605.3(p)).

Executive Order S-2-03 requires state agencies to cease processing proposed regulations, for up to 180 days, in order to conduct a re-assessment of the effects of the proposed regulations on California businesses. This letter is in response to Executive Order S-2-03 and addresses the proposed regulations that apply to residential clothes washers.

In the documents published in September 2003, the Energy Commission assessed the economic effects of the proposed residential clothes washer standards, including the effects on California businesses. The Energy Commission concluded:

**1. The proposed regulations are feasible and attainable.** There are current models of residential clothes washers that meet both the proposed 8.5 and 6.0 WF standards.

**2. The proposed regulations are cost-effective.** An Energy Commission Staff Report, *Update of Appliance Efficiency Regulations for Residential Clothes Washers* (Martin & Holland, September 2003), identifies the following costs and savings for the consumer who purchases a residential clothes washer that meets the standards:

8.5 WF				
Added First Cost	Annual Unit Reduction in Water Use (gallons)	Annual Unit Reduction in Operating Cost (based on \$.0035/gallon)	Simple Payback (years)	Design Life (years)
\$74.05	4,048	\$14.17	5.2	14

6.0 WF				
Added First Cost	Annual Unit Reduction in Water Use (gallons)	Annual Unit Reduction in Operating Cost (based on \$.0035/gallon)	Simple Payback (years)	Design Life (years)
\$135.80	6,973	\$24.41	5.56	14

(This analysis takes account of the reduced cost of water to the user, but not the reduced cost of heating that water, which is difficult to quantify; including water heating costs would reduce the payback period.)

At a public hearing held in October 2003, some commenters suggested that the cost-effectiveness analysis considered by the Energy Commission should incorporate a lower base-case water factor, using a 10.5 WF rather than a 12 WF. Without necessarily agreeing that the commenters were correct, the Energy Commission re-calculated the cost effectiveness of the standards using the suggested alternative assumptions. The results showed that the proposed regulations remained cost-effective using the suggested revised assumptions. The following tables contain the results of the revised analysis.

### 8.5 WF

Annual Unit Water Cost Savings (based on \$.0032/gallon)	Annual Unit Reduction in Electrical Use (kWh)	Annual Unit Electrical Cost Savings (based on \$0.115/kWh)	Annual Unit Reduction in Gas Use (therms)	Annual Unit Gas Cost Savings (based on \$0.63/therm)	Simple Payback (years)	Design Life (years)
\$7.53	13	\$1.49	3	\$1.89	6.1	14

### 6.0 WF

Added First Cost	Annual Unit Reduction in Water Use (gallons)	Annual Unit Water Cost Savings (based on \$.0032/gallon)	Annual Unit Reduction in Electrical Use (kWh)	Annual Unit Electrical Cost Savings (based on \$0.115/kWh)	Annual Unit Reduction in Gas Use (therms)	Annual Unit Gas Cost Savings (based on \$0.63/therm)	Simple Payback (years)	Design Life (years)
\$130.18	5,292	\$16.93	18	\$2.07	4	\$2.52	6.0	14

The revised analyses resulted in a change of payback to the consumer from 5.2 years to 6.1 with an 8.5 WF, and 5.56 to 6.0 with a 6.0 WF. The original analysis concluded there was no impact on state business, and the revised analysis also concludes there is no impact on business, but the consumer's payback period is slightly increased. The following economic effects are based on the Energy Commission's original analysis.

On a statewide basis, taking into account all consumers who will purchase residential clothes washers during the 14-year lifetime of the product, the total added dollar cost to consumers from increased purchase costs will be \$933,030,000. The net savings resulting from decreases in water bills will be \$2,228,688,000. The corresponding figures for the proposed 6.0 WF standard are \$1,711,080,000 in costs and \$3,840,102,000 in net benefits to the consumer.

**3. The proposed regulations will have substantial additional economic benefits for government and businesses.** In addition to creating savings in water costs, the proposed standards will save money by reducing water pumping requirements throughout the state. In the first year of its application, the 8.5 WF standard will result in reduced pumping costs for federal, state, and local government entities of \$1,136,225 the first year, and for private sector water utilities \$211,759 the first year. The corresponding savings for the 6.0 WF standard are \$1,957,238 savings in the first year for federal, state, and local governments, and \$364,772 for private sector water utilities. These savings are cumulative, as more washers meeting the standards will be purchased each year.

These savings equate to \$3,408,675 for federal, state, and local governments and \$635,277 for private sector water utilities for the 3-year period during which the 8.5 WF is in place prior to being replaced by the 6.0 WF. The 6.0 WF standard taking effect in 2010 is expected to save \$15,657,904 for federal, state, and local governments and \$2,918,176 for private sector utilities during the following 8 years. Moreover, the proposed standards will produce not only these direct benefits of decreased pumping costs, but by reducing the amount of electricity used for water pumping, may also provide a secondary benefit to all businesses of improved electricity supply and reliability.

**4. In sum, the effects of the proposed standards on California business will be large and positive.** While residential clothes washer manufacturers will face initial expenses (e.g., additional materials for manufacturing, research and development costs) to make the efficiency improvements required by the proposed standards, the Energy Commission believes that those costs will be recovered through increased purchase prices. Moreover, because there are no manufacturers of residential clothes washers in California, there will be no direct effect on manufacturing in the state.

#### Summary of Public Input

The Energy Commission's Energy Efficiency Committee conducted a public hearing on October 15, 2003, and the Energy Commission conducted a public hearing on November 5, 2003.

Statements of support were made by the following entities at the hearings or in writing:

#### NAME

#### LOCATION

Friends of the River, Mono Lake Committee,  
and Pacific Institute

Various

Inland Empire Utilities Agency

Chino, CA

City of San Diego

San Diego, CA

San Diego County Water Authority

San Diego, CA

Marcia Hagen

Fairfax, CA

Pacific Gas and Electric Company

San Francisco, CA

City of Davis

Davis, CA

West Basin Municipal Water District

Carson, CA

Central Basin Municipal Water District

Carson, CA

California Department of Water Resources

Sacramento, CA

Santa Fe Irrigation District

Rancho Santa Fe, CA

Los Angeles Department of Water and Power

Los Angeles, CA

Foothill Municipal Water District

LaCanada/ Flintridge, CA

City of Santa Rosa

Santa Rosa, CA

City of Hayward

Hayward, CA

Natural Resources Defense Council

San Francisco, CA

Sacramento Municipal Utility District

Sacramento, CA

Statements of opposition were made by the following entities:

<u>NAME</u>	<u>LOCATION</u>
Association of Home Appliance Manufacturers	Washington, DC
General Electric Company	Louisville, KY
Maytag Appliances	Washington, DC
California Retailers Association	Sacramento, CA

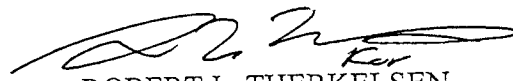
### Conclusions

1. The proposed regulations will save water and money for all individual consumers that purchase clothes washers subject to the standards.
2. The proposed regulations will result in improved availability of the water supply in California as a result of greatly decreased water use by clothes washers within the state.
3. California business enterprises that commented on the proposed amendment all strongly supported the proposed regulations, while three of the four entities that opposed the proposed regulations are all from out-of-state. There are no manufacturers of residential clothes washers located in California. One California business group expressed opposition to the regulation making a generic assertion without any supporting analysis. One retailer also wrote in opposition to these regulations. The issues raised in these letters have been addressed in the Commission's analysis.
4. The California Administrative Procedure Act requires that state agencies proposing to adopt, amend, or repeal any administrative regulation must assess the potential for economic impact on California business enterprises and individuals.
5. The Energy Commission assessed, before the public hearings and before the receipt of written public comments, the economic impact of the proposed regulations on California business enterprises and individuals and found them to be entirely positive.
6. The Energy Commission re-assessed, after the public hearings and after the receipt of written public comments, the economic impact of the proposed regulations on California business enterprises and individuals and found them again to be entirely positive.
7. Although there have been some comments that indicated differences of opinion of the precise amounts of costs and benefits, no comments provided any information that would change Conclusions 1 – 6 above.
8. The Energy Commission has a legislatively-mandated duty to adopt the proposed regulations before January 1, 2004, and should continue with its plans to do so.

### Further Information

If you have any questions about the details of this letter or the rulemaking for residential clothes washers that it describes, please contact Valerie T. Hall at [vhall@energy.state.ca.us](mailto:vhall@energy.state.ca.us) or (916) 654-5013.

Sincerely,

  
ROBERT L. THERKELSEN  
Executive Director

Cc: Peter Siggins, Governor's Legal Affairs Secretary